

### **REMARKS**

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks. Claims 1-4, 7-9 and 12-15 are amended in this response. Claims 1-17 remain pending in the present application.

#### **Claim Rejections Under 35 U.S.C. §102**

Claims 1-17 are rejected under 35 U.S.C. §102(b) as being anticipated by Kuo (US Patent No. 5,940,448, hereinafter "Kuo").

Claims 1, 5-6, 10-12 and 16-17 are rejected under 25 U.S.C. §102(b) as being anticipated by Applicants' admitted prior art. These rejections are respectfully traversed.

Kuo describes a universal serial bus receiver having input signal skew compensation. The receiver includes input glitch prevention circuitry (56) connected to the single-ended receivers (24, 26), which generates an intermediate end of packet signal gi. The intermediate end of packet signal gi is received by symmetrical delay compensation circuitry (58) which generates a final end of packet signal gc. The final end of packet signal gc is ANDed with the outputs of delay circuits (52, 54) in the single-ended output definition circuitry (60). The differential receiver (22) is used to detect the differential signal between the two inputs DP, DM, and two single-ended receivers (24, 26) for the two data input lines DP, DM, respectively, are used to detect the EOP condition. See lines 47-62, col. 3 and Figures 4 and 5 of Kuo. However, Kuo does not teach or suggest the claimed features of the present invention. More specifically, Kuo fails to disclose "a 90-degree hybrid circuit provided on an output side of the set of the transmission lines; and a variable phase shifter, a variable resistance attenuator, and a power amplifier which are provided on each of the set of transmission lines between the two-way distributor and the 90-degree hybrid circuit to control an amplitude and a phase of an input signal and amplify power of the input signal, the variable power distributor being characterized by comprising: a monitoring mechanism for monitoring output signals from the 90-degree hybrid circuit; and an error detection unit for detecting an error present in each component between the first and second transmission lines based on a monitoring output from the monitoring mechanism" as recited in claim 1 and similarly in claims 5, 10, 12 and 16.

In rejecting claims 1, 5, 10, 12 and 16, the Examiner asserts that Kuo teaches each and every feature of the present invention as recited in each of independent claims 1, 5, 10, 12 and 16. To support this assertion the Examiner points to lines 47-62, col. 3 and Figures 4 and 5 of Kuo. However, nowhere in the cited passage or elsewhere in Kuo is any disclosure of a variable power distributor, much less a distributor as claimed.

For the same reasons discussed above, Applicants further respectfully submitted that Kuo fails to disclose the claimed features of independent claims 5, 10, 12 and 16.

Independent claim 5 recites an error detection method for a variable power distributor comprising, *inter alia*, a 90-degree hybrid circuit provided on an output side of the set of the transmission lines; and a variable phase shifter, a variable resistance attenuator, and a power amplifier which are provided on each of the set of transmission lines between the two-way distributor and the 90-degree hybrid circuit to control an amplitude and a phase of an input signal and amplify power of the input signal and detects an error present in each component between the first and second transmission lines. The error detection method comprises, detecting output signals from the first and second transmission lines when a phase of the variable phase shifter provided on the first transmission line is rotated; detecting output signals based on the first and second transmission lines when a phase of the variable phase shifter provided on the second transmission line is rotated; and detecting the error present in each component based on the output signals using a rotating element electric field vector method.

Independent claim 10 recites an error detection method for a variable power distributor comprising, *inter alia*, a 90-degree hybrid circuit provided on an output side of the set of the transmission lines; and a variable phase shifter, a variable resistance attenuator, and a power amplifier which are provided on each of the set of transmission lines between the two-way distributor and the 90-degree hybrid circuit to control an amplitude and a phase of an input signal and amplify power of the input signal and detects an error present in each component between the first and second transmission lines. The error detection method comprises, detecting output signals from the first and second transmission lines when a phase of the variable phase shifter provided on the first transmission line is rotated; detecting output signals from the first and second transmission lines when a phase of the variable phase shifter provided on the second

transmission line is rotated; and detecting the error present in each component from the output signals using a rotating element electric field vector method.

Independent claim 12 recites a variable power distributor comprising, *inter alia*, a 90-degree hybrid circuit provided on each of input and output sides of the set of the transmission lines; and a variable phase shifter and a variable resistance attenuator which are provided on each of the set of transmission lines between the 90-degree hybrid circuit provided on the input side and the 90-degree hybrid circuit provided on the output side to control an amplitude and a phase of an input signal. The variable power distributor comprises, a monitoring mechanism for monitoring output signals from the 90-degree hybrid circuit; and a error detection unit for detecting an error present in each component between the first and second transmission lines based on a monitoring output from the monitoring mechanism.

Independent claim 16 recites an error detection method for a variable power distributor comprising, *inter alia*, a 90-degree hybrid circuit provided on each of input and output sides of the set of the transmission lines; and a variable phase shifter and a variable resistance attenuator which are provided on each of the set of transmission lines between the 90-degree hybrid circuit provided on the input side and the 90-degree hybrid circuit provided on the output side to control an amplitude and a phase of an input signal and detects an error present in each component between the first and second transmission lines. The error detection method comprises, detecting output signals from the first and second transmission lines when a phase of the variable phase shifter provided on the first transmission line is rotated; detecting output signals from the first and second transmission lines when a phase of the variable phase shifter provided on the second transmission line is rotated; and detecting the error present in each component based on the output signals using an improved rotating element electric field vector method.

In addition, the Examiner contends that Applicant's admitted prior art, in Figure 13 and the background art section of specification starting at page 1, line 13, discloses each and every feature of the present invention as recited in each of independent claims 1, 5, 10, 12 and 16. Applicants respectfully disagree. As clearly discussed in the cited portion of the specification, the present invention seeks to address the problems associated with prior art (see Figure 13, which unmistakably illustrates the structure of a power distributor of a conventional example) by

providing a variable power distributor capable of calculating an amplitude ratio and a phase difference as errors between transmission lines of two systems after the variable power distributor is built and correcting the amplitude and phase set values based on the errors. Thus, in contrary to the Examiner's assertion, Applicant's admitted prior art described in the background art section of the specification does not disclose the claimed features of the present invention. More specifically the Applicant's admitted prior art does not disclose monitoring output signals from a 90-degree hybrid circuit and detecting an error based on a monitoring output.

In view of the above remarks, it is respectfully submitted that neither Kuo nor Applicant's admitted prior art anticipates the present invention as recited in independent claims 1, 5, 10, 12 and 16. As claims 2-4, 6-9, 11, 13-15 and 17 are dependent to claims 1, 5, 10, 12 and 16 respectively, it is respectfully submitted that these claims are also patentable for at least the same reasons discussed with respect to claims 1, 5, 10, 12 and 16. Thus, it is further respectfully submitted that these rejections should be withdrawn.

#### **Objection to the Abstract**

The Abstract of the Disclosure is objected to because said Abstract contains legal phraseology claims, such as "means." The Abstract of the Disclosure has been amended to remove such language and therefore this objection is rendered moot.

#### **CONCLUSION**

In view of the above remarks, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Dennis P. Chen Reg. No. 61,767 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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